

Quadrivalent (Gardasil®) & Bivalent (Cervarix™)

Vaccine	HPV Types	Recommended Age	Minimum Age	Indicated for Females?	Indicated for Males?	Prevents
Gardasil® (HPV4 - quadrivalent) (Merck)	6, 11, 16, & 18	11-12 years	9 years	yes	yes	Cervical cancer, pre-cancers, genital warts, vulvar, vaginal cancers
Cervarix™ (HPV2 – bivalent) (GlaxoSmithKline)	16 & 18	11-12 years	9 years	yes	no	Cervical cancer, pre-cancers

Human Papillomavirus Vaccine Recommendations

General Recommendations:

Females

- HPV (Quadrivalent or Bivalent) vaccine is recommended for routine vaccination of females aged 11-12 years. The 3-dose vaccination series can be started as early as 9 years.
- Catch-up vaccination is recommended for females 13-26 years of age who have not completed the vaccine series. Ideally, the vaccine should be administered prior to potential exposure through sexual contact. (VFC vaccine may be administered to females through age 18 years (i.e., before the 19th birthday).

Males

- Quadrivalent HPV (Gardasil®) vaccine may be given to males aged 9-26 years to reduce the likelihood of acquiring genital warts. (VFC vaccine may be administered to males through age 18 years (i.e. before the 19th birthday).
- **Bivalent HPV (Cervarix) vaccine is not licensed for use in males.**

Administration:

- Whenever possible, the same HPV vaccine product should be used for all doses in the series.
- However, if providers do not know or have available the HPV vaccine product previously administered, either HPV vaccine product can be used to continue or complete the series to provide protection against HPV types 16 and 18.
- Gardasil® and Cervarix™ can be used interchangeably in females. Cervarix™ is **not** recommended for use in males.
- If the HPV vaccine schedule is interrupted, the vaccine series does not need to be restarted.
- HPV vaccines are not live vaccines and can be administered either simultaneously or at any time before or after an inactivated or live vaccine.



Indications

Quadrivalent HPV Vaccine (Gardasil)

- Gardasil is indicated for the prevention of cervical cancer, pre-cancers, genital warts, vulvar, and vaginal cancers.
- Protects against 4 types of HPV: Types 16 and 18 which are responsible for 70% of cervical cancers and Types 6 and 11 which (along with 18) are responsible for 90% of genital warts.

Bivalent HPV Vaccine (Cervarix)

- Protects against two types of HPV: Types 16 and 18 which are responsible for 70% of cervical cancers.

Human Papillomavirus Vaccination Schedule:

Dose Number	Dosage	Route	Intervals
First	0.5 mL	IM	
Second	0.5 mL	IM	1-2 months after the first dose (A minimum of 4 weeks after the first dose)
Third	0.5 mL	IM	6 months after the first dose (At least 12 weeks after the second dose and at least 24 weeks after the first dose)

Contraindications & Precautions

- Hypersensitivity such as a severe allergic reaction (e.g. anaphylaxis) after a previous dose of HPV vaccine or any vaccine component.
 - Cervarix™ (HPV2): the prefilled syringes contain latex
 - Gardasil® (HPV4): contraindicated for persons with a history of immediate hypersensitivity to yeast
- HPV vaccines are not recommended for use in pregnant women; pregnancy testing is not needed before vaccination. Any exposure to an HPV vaccine during pregnancy should be reported to the appropriate vaccine pregnancy registry:
 - 1-800-986-8999 (Merck for Gardasil®)
 - 1-888-452-9622 (GlaxoSmithKline for Cervarix™)
- If a woman is found to be pregnant after initiating the HPV vaccine series, remaining doses should be delayed until after the pregnancy.
- Because some people may develop syncope, sometimes resulting in falling with injury, observation for 15 minutes after administration is recommended.

**Adverse Reactions**

- **Injection site:** pain redness, swelling.
- **Systemic:** fatigue, headache, myalgia (muscle pain), gastrointestinal symptoms, arthralgia (joint pain).

Vaccine Storage and Handling

- Store Cervarix and Gardasil in the refrigerator between 35°F and 46°F (aim for 40°F).
- **Do not freeze** – discard if vaccine has been frozen.